Statistical Bulletin

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Family History and Longevity

EVIDENCE THAT some of the common diseases tend to run in families is found in a recent mortality study based upon the experience of a large number of Life insurance companies during the period 1935 through 1950.* The evidence is derived from a comparison of the mortality among persons who reported a family history of cardiovascular-renal disease, cancer, diabetes, or mental disease at the time they applied for Ordinary Life insurance with the mortality for all Ordinary policyholders to whom insurance was issued at standard premium rates.

In view of the predominance of heart and other circulatory diseases in the mortality picture, particular interest attaches to the experience of the more than 15,000 insured persons in the study who had reported two or more close relatives with cardiovascular-renal disease acquired before age 60. The mortality among policyholders with such family history to whom insurance was issued at standard premium rates was about 40 percent higher than that for standard Ordinary risks as a whole. Most of the excess mortality was attributable to the high death rate from diseases of the heart and vascular system.

A review of the experience of two large companies indicated that among the insured who, in addition to having a family history of cardiovascular-renal disease, either were slightly overweight or had a slight elevation in blood pressure, the mortality was 70 percent higher than the average for standard Ordinary risks, whereas among insured lives with a family history of cardiovascular-renal disease but free of these impairments, the mortality was only 25 percent above the average. Thus, the influence of family history is increasingly apparent among persons with conditions associated with cardiovascular disease, such as overweight or hypertension.

The 1951 Impairment Study did not separately analyze the experience for heart disease according to etiological types, but such information is available from other investigations. The work of Dr. May Wilson and her associates in New York City, for example, indicates a hereditary susceptibility to rheumatic fever and rheumatic heart disease. Similarly, a recent clinical study† showed that the prevalence of coro-

*1951 Impairment Study, published by the Society of Actuaries, April 1954.

†M. M. Gertler, S. M. Garn, and P. D. White, "Young Candidates for Coronary Heart Disease," *Journal of the American Medical Association*, Oct. 13, 1951, p. 621.

nary heart disease was considerably higher among the parents of a group of young patients suffering from coronary heart disease than it was among parents in a control group. Among the siblings of these cardiac patients, the excess of coronary heart disease was even higher than it was among the parents.

In the recent insurance study, among policyholders reporting two or more cases of cancer in parents or siblings under age 60, the mortality from all causes combined was about average, but the mortality from cancer, which accounted for one third of all the deaths in this group, was more than twice the average. Some studies based on clinical histories likewise indicate that susceptibility to cancer of certain sites may run in families. It has been reported that cancer affects both members of identical twins more frequently than it does both fraternal twins.

Some evidence of familial association in diabetes is found in the 1951 Impairment Study. The mortality from diabetes among policyholders with even a single diabetic (at any age) in the family was nearly twice the average for all standard Ordinary policyholders. Further evidence of the role of heredity in this disease is afforded by numerous studies of clinical records, including those based upon the extensive experience of the Joslin Clinic in Boston.

Some information on the hereditary aspects of mental disease is afforded by the experience on insured persons who reported two or more cases of mental disease in the family before age 60. This age limitation served to eliminate most cases of mental disease or degeneration due to cerebral arteriosclerosis. The mortality from all causes combined among the insured with such family history was slightly above average. In this study, as well as in an earlier one, their mortality from suicide, a fairly reliable index of mental disorder, was several times the normal.

A number of investigations have pointed to the conclusion that mental disease is not directly inherited, although some predisposing factor may be transmitted. Children of parents with a mental disorder are more likely to develop mental disease than children of parents not so afflicted. Undoubtedly the effect of the home environment often contributes to the higher incidence of mental disease in such cases.

Inasmuch as family history influences individual susceptibility to disease, there is little surprise in the fact that it also affects longevity to some degree. Various studies based upon insurance and other records indicate that persons with a good family history of longevity live longer, on the average, than those with a poor record of parental longevity. While the effect of family history on longevity is appreciable, it is nevertheless small compared with the gains in longevity observed through the improvement in environment since the turn of the century.

Mortality Trends Here and Abroad*

THE COUNTRIES of Western Europe and the English-speaking countries elsewhere experienced substantial reductions in mortality in the period from about 1930 to 1950. The largest declines—approximately one third—were recorded in France and Italy, both of which had relatively high death rates around 1930; the smallest reductions—about one eighth—occurred in Australia and New Zealand, countries with traditionally low mortality. In general, the differences in death rate between countries decreased; this trend is observed for both males and females, and in each age group. Nevertheless, the ranking of the countries according to magnitude of mortality did not change materially in the two decades. The figures are shown in the table on page 4. The period around 1930 represents the mortality picture just prior to the worldwide economic depression and the political disturbances preceding World War II; the year 1950 is the latest for which a large body of international data is available and is sufficiently long after the close of the war to be generally free from its undue effect upon mortality.

In each of the countries under review, females experienced a relatively greater reduction in death rate than males, even though females generally experienced the lower mortality in 1930. Consequently, the excess of male over female mortality increased during the two decades. In most countries, the excess male mortality in both periods was relatively greatest in the age range 45 to 64 years.

Progress in reducing mortality was consistently more rapid at the younger than at the older ages. At the ages under 45, the death rates in 1950 were generally about half of what they had been two decades earlier. By ages 65 and over, the decreases averaged only about 10 percent; and in a few countries the mortality actually increased somewhat among men at these ages. With this difference in trend by age has come a material change in the age pattern of mortality. The death rate before midlife has been brought down to low levels, while mortality has been concentrated more and more at the older ages.

With respect to level of mortality, the rank of the United States among the countries under survey varied markedly with age. In 1950, very few countries had a better record than ours for mortality in early childhood. The position of our country becomes less and less favorable, however, as age advances. Thus, for white males in the age range 10-34 years, from seven to nine countries showed lower mortality than the United States, reflecting principally the lower incidence of fatal accidents among males at these ages in these countries. By ages 55-59 years, 15

*This article is based upon a paper, "An International Comparison of Mortality Rates at the Older Ages," by Mortimer Spiegelman, Associate Statistician, Metropolitan Life Insurance Company, presented at the World Population Conference in Rome, August 31, 1954.

AGE-ADJUSTED DEATH RATES* PER 1,000 IN BROAD AGE GROUPS BY SEX, FOR SELECTED COUNTRIES OF LOW MORTALITY, 1950 AND ABOUT 1930

Period; Country	MALES					FEMALES				
	All ages	Ages under 25	Ages 25-44	Ages 45-64	Ages 65 & over	All ages	Ages under 25	Ages 25-44	Ages 45-64	Ages 65 & over
1950										
U. S., white	11.0	2.8	2.8	15.5	72.0	7.5	1.9	1.7	8.7	54.0
England and Wales	11.4	2.7	2.3	14.5	81.1	8.0	2.1	1.9	8.4	59.3
Scotland	12.3	3.4	2.8	16.9	81.8	9.5	2.8	2.8	10.2	66.6
Australia	11.2	2.7	2.4	14.4	79.1	7.8	1.9	1.8	8.7	57.3
New Zealand	10.1	2.3	1.9	12.1	74.5	7.6	1.7	1.7	8.5	57.4
Canada	10.1	3.7	2.4	12.9	63.8	7.8	2.8	2.0	8.5	53.4
Union of South Africa	11.8	3.5	3.3	16.6	73.7	8.6	2.6	2.3	9.9	58.7
Ireland	11.8	4.0	3.3	13.8	77.4	10.1	3.5	3.5	10.8	65.8
Netherlands	8.4	2.4	1.7	9.1	61.8	7.3	1.8	1.4	7.2	57.6
Belgium	12.1	4.5	3.1	15.0	76.7	8.9	3.3	2.2	9.1	61.4
France	12.0	4.1	3.3	14.9	77.2	8.2	3.2	2.3	8.5	54.2
Switzerland	10.9	3.3	2.5	13.2	74.7	8.2	2.3	1.8	8.5	60.8
Germany, Fed. Rep	11.3	4.7	2.9	12.6	72.2	9.1	3.6	2.1	8.6	64.6
Denmark	9.3	2.7	1.9	10.3	67.5	8.0	1.9	1.6	8.2	62.7
Norway	8.4	2.8	2.0	8.9	59.4	6.8	2.0	1.4	6.5	51.7
Sweden	9.0	2.2	1.9	10.0	67.2	7.6	1.5	1.6	7.8	60.7
Finland	14.1	4.1	4.5	19.5	87.0	9.5	3.0	2.5	9.3	68.8
Portugal	15.3	10.6	5.1	15.0	77.4	11.5	9.3	3.5	9.0	59.0
Italy	11.1	5.6	2.8	12.5	66.3	9.1	4.9	2.2	8.2	58.8
About 1930										
U. S., white	14.6	6.5	5.2	18.2	81.4	12.1	5.3	4.4	13.9	71.1
England and Wales	14.9	7.0	4.4	16.6	90.1	11.7	5.7	3.8	12.1	70.8
Scotland	16.4	8.8	5.2	17.3	93.7	13.5	7.5	4.6	13.9	76.2
Australia	12.0	4.7	3.7	14.1	74.5	9.5	3.8	3.4	10.1	59.7
New Zealand	11.1	3.8	3.6	12.9	71.3	9.4	3.0	3.3	10.5	62.3
Canada	12.9	7.8	4.1	13.2	70.9	11.7	6.5	4.5	11.8	64.5
Union of South Africa	13.7	6.9	5.0	17.0	72.3	11.3	5.8	4.3	12.0	62.9
Ireland	14.5	7.7	5.4	17.9	74.8	13.8	7.0	6.1	17.9	67.2
Netherlands	11.4	5.3	3.0	11.7	72.6	10.8	4.4	3.4	11.4	69.4
Belgium	15.6	9.1	5.3	16.9	83.9	12.9	7.5	4.6	12.6	71.6
France	17.6	8.2	7.2	20.4	97.0	13.7	7.2	5.4	13.2	79.2
Switzerland	15.0	5.6	5.1	19.1	89.0	12.1	4.7	4.0	13.1	76.7
Germany	13.8	7.3	4.1	14.6	80.7	12.1	6.0	3.8	12.1	74.4
Denmark	12.4	6.9	3.4	12.6	73.7	11.7	5.4	3.9	12.0	71.6
Norway	11.5	5.5	5.4	12.0	64.6	10.0	4.5	4.6	9.9	58.3
Sweden	12.2	5.9	4.6	12.7	70.5	11.2	5.1	4.4	11.3	67.2
Finland	18.2	9.6	8.8	23.3	83.6	14.2	8.4	6.9	13.8	71.3
Portugal	19.5	15.1	8.1	18.1	88.0	16.0	14.0	6.1	11.6	73.6
Italy	16.1	11.5	5.4	15.2	80.9	14.4	10.8	4.9	12.0	73.5

NOTE—United States in 1930 relates to the death registration States of that year; Australia excludes fullblood aboriginals; New Zealand excludes Maoris; Canada excludes Newfoundland in 1931 and the Yukon and the Northwest Territories in 1931 and 1949; Union of South Africa includes Europeans only.

*Adjusted on the basis of the age distribution of the total population of the United States at the census of 1950.

out of the 19 countries had better general mortality records than the United States. The international picture for our white males has not changed essentially over the past 20 years, except that boys at the preschool ages have improved their relative standing among the countries.

In 1950, white females in our country had a more advantageous position internationally than did our white males at every age period. In only three countries were the mortality rates among white females under age 35 lower than those in the United States. Even at ages 55-59 years, our females occupied a middle position among the countries. During the 20 years under review, the rank of our white females improved at every age, particularly at the extremes of life.

Our favorable mortality experience at the younger ages reflects the large measure of control gained over many of the infectious diseases of childhood. Apart from our unfavorable accident mortality, it is difficult to explain the relatively poor record of our country at the older ages, particularly for males. It is possible that the relatively low mortality at the younger ages in the United States is due in part to the prolongation of life of persons with physical impairments facilitated by our excellent medical care and high living standards. Consequently, the proportion of impaired lives at the older ages may be greater in the United States than in other countries, with a corresponding unfavorable effect upon mortality. There may also be other and even more important factors at work. It may well be that our poor international standing at the older ages is related to the high proportion of overweight people in our population.

Fatal Accidents Among Men at the Working Ages

ACCIDENTS TAKE more than 40,000 lives each year among men at the main working ages of life, that is, from 15 through 64 years. Only heart disease and cancer account for a greater number of deaths in this broad age group; in the 25 years of life from 15 through 39, more men die from accidental injuries than from any other cause.

Motor vehicle mishaps are the outstanding accident hazard for men under age 65, being responsible for nearly half of all the fatal injuries among them. This is evident from Table 1, which is based upon the experience of the Industrial policyholders of the Metropolitan Life Insurance Company during 1951-1953. Most of the men who lost their lives in motor vehicle accidents were occupants of the vehicle either as drivers or as passengers at the time they were injured. At the ages under 45, noncollision accidents—such as those in which vehicles overturn or run off the roadway—killed more men than did the collision of motor vehicles. At ages 45-64, however, accidents involving collisions took the greater toll.

Falls, ranking second as a cause of

fatal injuries among insured men at the main working ages, accounted for one ninth of their total accident mortality. The death rate from this cause rises rather sharply with advance in age. As a result, the ratio of falls to all fatal mishaps in this experience increased from 3 percent at ages 15-24 to 21 percent at ages 45-64. Most of the fatal falls among men at the younger adult ages were due to falls from windows, ladders, scaffolds, roofs, and other high places. Past midlife, a considerable part of the mortality results also from falls on stairs and falls on the same level (such as those on floors or streets).

The loss of life from drowning, much of it sustained in sports and

TABLE 1 — DEATH RATES FROM SPECIFIED ACCIDENTS AMONG MEN AGES 15-64 YEARS INDUSTRIAL POLICYHOLDERS,* METROPOLITAN LIFE INSURANCE COMPANY, 1951-1953

TYPE OF ACCIDENT	AVERAGE ANNUAL DEATH RATE PER 100,000				PERCENT OF ALL ACCIDENTAL DEATHS			
	15-64	15-24	25-44	45-64	15-64	15-24	25-44	45-64
Accidents—Total	72.9	72.2	64.2	85.0	100.0	100.0	100.0	100.0
Motor vehicles—total	33.7	43.2	29.1	29.7	46.2	59.8	45.3	34.9
Collision with pedestrian	5.6	2.7	3.2	11.8	7.7	3.7	5.0	13.9
Collision with other motor vehicle	10.5	13.2	9.9	8.4	14.4	18.3	15.4	9.9
Collision with other vehicles	1.8	2.4	1.5	1.4	2.5	3.3	2.3	1.6
Collision with fixed objects	1.0	1.3	1.1	.6	1.4	1.8	1.7	.7
Noncollision	11.7	18.5	11.0	5.6	16.0	25.6	17.1	6.6
Falls	8.3	2.1	5.6	18.2	11.4	2.9	8.7	21.4
Falls on stairs	1.9	.1	1.0	4.9	2.6	.1	1.6	5.8
Other falls from one level to another	3.7	1.8	3.0	6.6	5.1	2.5	4.7	7.8
Falls on same level	1.4	.1	.8	3.6	1.9	.1	1.2	4.2
Drownings	7.9	10.5	6.9	6.6	10.8	14.5	10.7	7.8
Burns and conflagrations	3.7	1.3	3.8	6.0	5.1	1.8	5.9	7.1
Conflagrations	1.6	.8	1.6	2.2	2.1	1.1	2.5	2.6
Burns (except conflagrations)	2.1	.5	2.2	3.8	2.9	.7	3.4	4.5
Firearms	2.3	4.0	1.7	1.2	3.2	5.5	2.6	1.4
Absorption of poisonous gas	1.5	.7	1.4	2.5	2.1	1.0	2.2	2.9
Utility (illuminating) gas	.7	.3	.5	1.2	1.0	.4	.8	1.4
Poisonings by solids and liquids	1.2	.8	1.2	1.6	1.6	1.1	1.9	1.9
Barbituric acid and derivatives	.3	.2	.3	.4	.4	.3	.5	.5
All other and unspecified accidents	14.3	9.6	14.5	19.2	19.6	13.4	22.7	22.6
Occupational†	13.4	5.2	14.6	20.5	18.4	7.2	22.7	24.1
Home†	6.9	2.8	5.3	13.5	9.5	3.9	8.3	15.9

*Premium-paying business, Weekly and Monthly.
†A cross-classification of the deaths included under the individual types of accidents.
NOTE—These figures exclude injuries sustained by military personnel in the course of duty.

TABLE 2 — DEATH RATES FROM ACCIDENTS AMONG MEN AGES 15-64 YEARS INDUSTRIAL POLICYHOLDERS*, METROPOLITAN LIFE INSURANCE COMPANY, 1931-1933 TO 1951-1953

Age Period (Years)	Average Annual Death Rate per 100,000			Percent Change 1951–1953 Since:	
	1951–1953	1941–1943	1931–1933	1941–1943	1931–1933
15-64	72.9	80.5	106.7	− 9.4	−31.7
15-24	72.2	64.6	82.9	+11.8	−12.9
25-44	64.2	70.4	92.5	− 8.8	−30.6
45-54	76.4	97.4	139.6	−21.6	−45.3
55-64	94.2	139.1	198.0	−32.3	−52.4

*Premium-paying business, Weekly and Monthly.
NOTE—These figures exclude injuries sustained by military personnel in the course of duty.

recreation, was almost as large as that from falls. Altogether, the three leading causes of accidental death—motor vehicles, falls, and drownings—were responsible for about seven out of every 10 deaths in this experience. A considerable part of the remaining mortality was due to burns and conflagrations, firearms, and poisonings by gases, solids, or liquids.

Viewing this insurance experience from another angle, we find that nearly one fifth of all the accidental deaths among men at the main working ages of life arose out of and in the course of employment; past early adult life the proportion was not far from one quarter. Injuries sustained in and about the home were responsible for an additional 10 percent of the accidental death toll among men at ages 15-64. The mortality from home accidents rose progressively with advance in age, reflecting in part the greater amount of time that older men spend around their homes. The detailed figures appear in the lower tier of Table 1.

It is encouraging that in the last 20 years material progress has been made in reducing the mortality from accidents among men at the main working ages of life. As Table 2 shows, the reduction amounted to about one third between 1931-1933 and 1951-1953, the downward trend being more rapid in the first decade of the period than in the second. During these two decades the relative improvement in accidental mortality was greater at the later working ages than it was at the earlier ones. As a result, the disparity in the accident death rate between the youngest and the oldest age groups has narrowed considerably.

Despite the progress made, accidents still take an unnecessarily heavy toll of life among men at the main working ages. The White House Conference on Highway Safety and the President's Conference on Occupational Safety have

given impetus to life-saving activities in these fields. But the attitudes and behavior of individuals remain the focal point of the safety problem. Many lives of both men and women would be saved each year if people obeyed the traffic laws strictly, exercised caution in recreational activities, observed the rules of safety on their jobs, and kept their homes as free from accident hazards as possible.

Postwar Immigration to the United States and Canada

THE close of World War II brought a resurgence of immigration to both the United States and Canada. The number of immigrant aliens entering the United States during the postwar period has averaged nearly 190,000 a year. This is four times the annual average for the preceding 15 years, during which time economic depression and war kept the international movement of population to a minimum. The number of recent immigrants, however, has been below the annual admissions in most years prior to 1931. In fact, during the heaviest influx—from 1903 through 1914—more than three quarters of a million people annually came into the United States, and in six of these years the number was more than a million.

Canada has been experiencing a relatively greater upsurge in immigration than the United States. During the postwar period an average of slightly more than 100,000 immigrants a year have been coming into Canada, which is five times the annual number between 1930 and 1944. Moreover, because of its much smaller population, Canada has felt the impact of immigration more heavily than the United States. The postwar immigration rate to Canada has averaged 7.7 per 1,000 population, or about six times the United States rate.

People in the prime of life have constituted the majority of the postwar immigrants to both countries, as is evident from the accompanying tables. During the eight-year period, two thirds of the arrivals have been in the age group 18-49. However, males have constituted a higher proportion of the immigrants to Canada than to the United States, the figures being 53 percent and 43 percent, respectively. The admission of war brides and fiancees of servicemen augmented the recent influx of women to both countries. The United States experience also reflects the quota preference for wives and relatives of immigrants already in the country.

About half of the immigrants to the United States and Canada since World War II have come from Continental Europe. However, people from the British Isles comprise nearly one third of the immigrants to Canada and one eighth of the newcomers to the United States. Counting the arrivals from the United States, about two fifths of the people coming into Canada are from English-speaking countries; in

TABLE 1 — NUMBER AND CHARACTERISTICS OF IMMIGRANT ALIENS ADMITTED TO THE UNITED STATES, 1946-1953

Year Ended June 30	Admissions		Percent of Total Admissions During Year							
				Ages			Area of Last Permanent Residence			
	Number	Rate per 1,000 Population	Male	Under 18	18-49	50 and Over	British Isles	Continental Europe	Canada	Other
1946	108,721	0.8	25.1	12.9	79.8	7.3	32.0	16.1	18.8	33.1
1947	147,292	1.0	36.5	16.1	70.5	13.4	16.9	38.8	15.9	28.3
1948	170,570	1.2	39.5	17.1	68.5	14.4	16.5	40.8	14.5	28.2
1949	188,317	1.3	42.7	20.0	68.2	11.8	12.4	53.0	13.0	21.6
1950	249,187	1.6	47.8	22.7	65.1	12.2	5.5	72.4	8.8	13.3
1951	205,717	1.3	48.3	23.7	63.0	13.3	7.5	63.9	12.6	16.0
1952	265,520	1.7	46.6	26.9	63.0	10.1	8.6	63.2	12.6	15.6
1953	170,434	1.1	42.9	24.4	66.9	8.7	10.3	36.0	21.3	32.4

Source of basic data: U. S. Immigration and Naturalization Service.

most earlier years the proportion was close to three fourths. A considerable proportion—fully one quarter—of the immigrants to the United States during the postwar period have been from the English-speaking countries, about equally divided between the British Isles and Canada. The proportion of such immigrants was lower, however, during the heaviest influx into the United States.

The patterns of emigration from the United States and Canada also differ. Emigration from Canada has consistently been at a much higher level than that from the United States. Although official emigration statistics are not available for Canada, postwar estimates indicate that there has been one person leaving for every two coming in. Moreover, it is probable that the ratio of emigrants to immigrants was even higher in former years. For many decades, a major factor has been the remigration to the United States of Europeans originally arriving in Canada, while native-born Canadians have contributed about two fifths of the migrants from Canada to the United States.

Many of the people entering the United States do not settle there permanently. At times, in fact, emigrants outnumbered immigrants. For example, during the depression years 1932-1935, the number leaving the country exceeded the arrivals by 139,000. But even in normal years many migrants returned to their home country or remigrated. Since the end of World War II, for example, the number of emigrants has been equivalent to one eighth of the immigrants. Moreover, it is probable that as many as 12½ million of the 41 million immigrants who came to the United States since its founding subsequently left the country.

TABLE 2 — NUMBER AND CHARACTERISTICS OF IMMIGRANTS TO CANADA, 1945-1952

Year	Arrivals		Percent of Total Arrivals During Year							
	Number	Rate per 1,000 Population	Male	Ages			Area of Last Permanent Residence			
				Under 18	18-49	50 and Over	British Isles	Continental Europe	United States	Other
1945	22,722	1.9	33.9	30.1	62.4	7.5	47.5	22.2*	28.1	2.2*
1946	71,719	5.8	28.6	29.2	65.8	5.0	70.4	7.2	16.0	6.4
1947	64,127	5.1	52.1	18.8	70.0	11.2	55.3	21.4	14.7	8.6
1948	125,414	9.8	53.5	21.7	69.8	8.5	34.0	54.1	5.9	6.0
1949	95,217	7.3	53.7	24.4	66.8	8.8	21.8	64.8	8.1	5.3
1950	73,912	5.4	55.5	25.8	64.9	9.3	17.1	64.8	10.6	7.5
1951	194,391	13.9	61.8	23.3	71.3	5.4	16.2	74.8	4.0	5.0
1952	164,498	11.4	54.6	27.3	66.6	6.1	27.4	59.5	5.7	7.4

*Estimated.

Source of basic data: Various issues of the *Canada Year Book*.

AN INVITATION
TO VISIT THE COMPANY'S EXHIBIT

Everyone attending the 82d Annual Meeting of the American Public Health Association in Buffalo, N. Y., October 11-15, is cordially invited to visit the Metropolitan Life Insurance Company exhibit entitled THEIR FUTURE LOOKS GOOD, which will be displayed in Booths 726-727, Memorial Auditorium.

The theme of the exhibit is that good health and safety habits in middle life make for a good old age.

DEATH RATES FROM SELECTED CAUSES
INDUSTRIAL POLICYHOLDERS, METROPOLITAN LIFE INSURANCE COMPANY
AUGUST 1954

CAUSE OF DEATH	ANNUAL RATE* PER 100,000 POLICYHOLDERS†				
	AUGUST		YEAR TO DATE		
	1954	1953	1954	1953	1952
All Causes—Total	579.2	585.4	638.1	661.0	671.6
—Excluding war deaths	578.6	580.9	634.1	658.6	669.1
Tuberculosis (all forms)	9.8	8.8	9.6	10.8	15.4
Tuberculosis of respiratory system	9.3	7.9	8.8	9.7	14.1
Syphilis	1.8	2.0	2.5	2.7	2.9
Communicable diseases of childhood	.4	.3	.4	.4	.7
Acute poliomyelitis	1.0	2.2	.3	.7	.7
Malignant neoplasms	128.3	124.2	128.8	125.7	126.7
Digestive system	44.2	45.5	46.9	44.8	47.4
Respiratory system	16.8	15.4	16.4	15.5	14.0
Diabetes mellitus	13.6	13.2	14.9	15.9	14.6
Diseases of the cardiovascular-renal system	293.2	294.3	333.7	351.2	354.4
Vascular lesions, central nervous system	58.8	60.4	64.8	68.9	71.3
Diseases of heart	212.9	209.3	242.3	254.3	253.4
Chronic rheumatic heart disease	10.9	12.4	12.6	13.5	14.0
Arteriosclerotic and degenerative heart disease	162.9	155.2	182.1	189.3	184.6
Hypertension with heart disease	31.2	33.2	38.4	41.6	44.4
Other diseases of heart	7.9	8.5	9.2	9.9	10.4
Hypertension without mention of heart	5.9	4.4	5.9	6.0	6.2
General arteriosclerosis	4.4	5.9	6.0	6.3	6.9
Other diseases of circulatory system	4.2	4.7	5.2	4.7	4.3
Nephritis and nephrosis	7.0	9.6	9.5	11.0	12.3
Pneumonia	10.5	8.2	13.7	17.1	17.1
Influenza	.3	.8	1.2	3.8	2.3
Ulcers of stomach and duodenum	3.2	4.2	4.7	4.9	4.8
Appendicitis	1.4	1.4	1.3	1.4	1.7
Hernia and intestinal obstruction	3.6	3.4	4.0	3.9	3.8
Gastritis, duodenitis, enteritis, etc	2.7	2.5	2.5	2.4	3.0
Cirrhosis of liver	8.4	8.9	9.8	10.3	10.2
Diseases of the gall bladder and biliary ducts	2.5	3.2	3.2	3.7	3.7
Complications of pregnancy, childbirth	1.4	1.4	1.1	1.3	1.5
Congenital malformations	3.3	2.8	3.0	3.1	3.4
Suicide	4.8	5.4	5.5	6.0	6.5
Homicide	2.1	3.6	2.3	3.0	3.4
Accidents—total	40.8	43.2	36.9	37.6	41.4
Motor vehicle	14.8	17.2	14.3	15.3	15.7
Home	5.4	7.1	6.9	7.4	8.2
Occupational (civilian)	2.5	3.1	2.5	3.4	3.9
War deaths—enemy action	.6‡	4.5	4.0‡	2.4	2.5
All other causes	45.7	46.7	54.7	52.7	50.9

*The rates for 1954 are provisional.
†Persons insured under Weekly and Monthly premium paying policies.
‡The recorded mortality from war deaths in 1954 results from the payment of claims on policyholders originally reported as missing who have recently been declared officially dead.

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MORTALITY FROM ALL CAUSES

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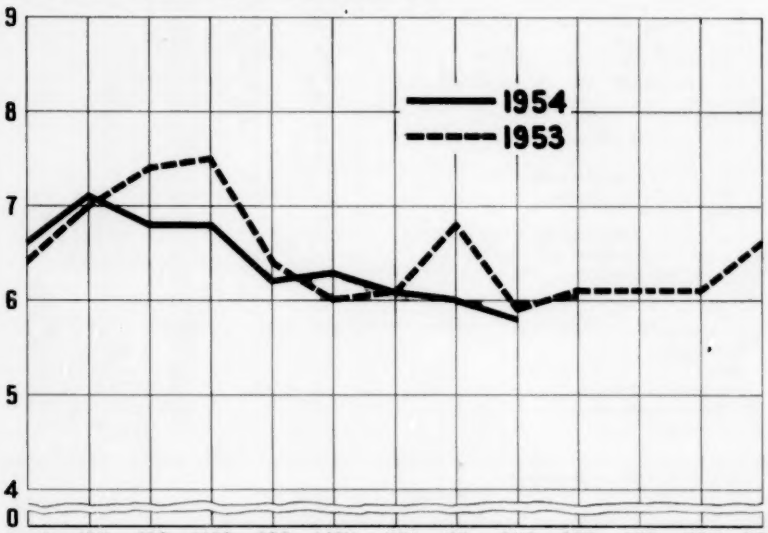
WEEKLY AND MONTHLY COMBINED

DEATH RATES PER 1,000 POLICYHOLDERS · ANNUAL BASIS



(DEC)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1953	7.0	7.4	7.5	6.4	6.0	6.1	6.8	5.9	6.1	6.1	6.1	6.6
1954*	7.1	6.8	6.8	6.2	6.3	6.1	6.0	5.8				

1954 figures are provisional
**See footnote ‡ in table on page 11*

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